

1 In the Claims

2 Please cancel claims 1-20 without prejudice, and add new claims 17-32, as
3 follows:

4
5 Claims 1-20 (cancelled).

6
7 Claim 21 (new). Apparatus comprising an optical fibre having a waveguide and
8 at least one stress applying region, wherein:

9 the waveguide is defined by a numerical aperture;

10 the stress applying region is defined by a depressed refractive index;

11 the optical fibre is configured such that the waveguide supports at least two
12 polarised fundamental modes, two polarised first second-order modes, and two
13 polarised second second-order modes;

14 the waveguide comprises a gain medium; and

15 the stress applying region, the waveguide and the disposition of the gain
16 medium are such as to provide preferential guidance to at least one of the modes at
17 an operating wavelength.

18
19 Claim 22 (new). The apparatus of claim 21 wherein the optical fibre is bent.

20
21 Claim 23 (new). The apparatus of claim 21 wherein the gain medium comprises
22 one or more rare-earth dopants.

23
24 Claim 24 (new). Apparatus according to claim 23 in which the rare earth dopant
25 comprises one or more of Ytterbium, Erbium, Neodymium, Praseodymium, Thulium,
Samarium, Holmium, Europium, Terbium, and Dysprosium.

1 Claim 25 (new). The apparatus of claim 21 wherein at least one of the
2 fundamental modes, the first second-order modes, and the second second-order
3 modes is leaky at the operating wavelength.

4
5 Claim 26 (new). The apparatus of claim 21 wherein the optical fibre is configured
6 to operate as a single-polarisation optical fibre at the operating wavelength.

7
8 Claim 27 (new). The apparatus of claim 21 wherein the optical fibre is defined by
9 a length, and is tapered along its length.

10
11 Claim 28 (new). The apparatus of claim 21 wherein the waveguide is defined by
12 a length, and is tapered along its length.

13
14 Claim 29 (new). The apparatus of claim 21 wherein the numerical aperture
15 corresponds to an index difference less than 0.0035.

16
17 Claim 30 (new). The apparatus of claim 21 wherein the numerical aperture
18 corresponds to an index difference less than 0.003.

19
20 Claim 31 (new). The apparatus of claim 21 wherein the numerical aperture
21 corresponds to an index difference less than 0.0025.

22
23 Claim 32 (new). The apparatus of claim 21 wherein the numerical aperture
24 corresponds to an index difference less than 0.002.

25
Claim 33 (new). The apparatus of claim 21 wherein the optical fibre comprises a
photosensitive region.

1 Claim 34 (new). The apparatus of claim 33 wherein which the photosensitive
2 region is at least partly in the stress applying region.

4 Claim 35 (new). Apparatus according to claim 13 in which the photosensitive
5 region is at least partly in the waveguide.

7 Claim 36 (new). The apparatus of claim 21 wherein the optical fibre is defined by
8 a stimulated Brillouin scattering threshold, and the optical fibre has been exposed to
9 ultraviolet radiation at least partly along its length in order to increase the stimulated
10 Brillouin scattering threshold.

12 Claim 37 (new). The apparatus of claim 21 wherein the optical fibre is defined by
13 a stimulated Brillouin scattering threshold, and the optical fibre has been exposed to
14 heat treatment at least partly along its length in order to increase the stimulated
15 Brillouin scattering threshold.

17 Claim 38 (new). The apparatus of claim 21 wherein the apparatus is in the form
18 of an optical amplifying device.

20 Claim 39 (new). The apparatus of claim 38 wherein the optical amplifying device
21 is configured to provide single-polarisation operation.

23 Claim 40 (new). The apparatus of claim 38 wherein the optical amplifying device
24 is an optical amplifier, a laser, a master oscillator power amplifier, or a source of
25 amplified spontaneous emission.

(End of Amendments.)